

CLAIM

1. A rotary fluid machine comprising: a cylinder **1c** having a cylinder body **2** and plates **7** and **8** arranged at both end surfaces of the cylinder body **2**, one of the plates **7** and **8** having a high pressure port **10**; and a roller **3** placed in the cylinder **1c**, wherein

5 the end surfaces of the roller **3** which are slidably in contact with the plates **7** and **8** of the cylinder **1c** have different widths and

the roller **3** is arranged such that one of the end surfaces **7** and **8** having a larger width than the width of the other end surface faces the high pressure port **10**.

10 2. A rotary fluid machine according to claim 1, wherein the roller **3** is made of a sintered alloy.

3. A rotary fluid machine according to claim 1, wherein
the cylinder **1c** includes two cylinder bodies **25** and **26**,
15 a partition plate **27** sandwiched between the cylinder bodies **25** and **26** and end plates **7** and **8** arranged outside the cylinder bodies are provided as the plates,

the roller **3** is arranged in each of the cylinder bodies **25** and **26** to have a difference in rotational phase,

the end plates **7** and **8** are provided with high pressure ports **10**, respectively,

20 the end surfaces of each of the rollers **3** which are slidably in contact with the plates **7** or **8** and **27** of the cylinder **1c** have different widths and

each of the rollers **3** is arranged such that one of the end surfaces having a larger width faces the end plate **7** or **8** and the other end surface having a smaller width faces the partition plate **27**.

25 4. A rotary fluid machine according to claim 1, wherein
the cylinder **1c** is arranged in an airtight container **9** and includes two cylinder

bodies **25** and **26**,

a partition plate **27** sandwiched between the cylinder bodies **25** and **26** and end plates **7** and **8** arranged outside the cylinder bodies **25** and **26** are provided as the plates,

the roller **3** is arranged in each of the cylinder bodies **25** and **26**,

5 the end plates **7** and **8** are provided with high pressure ports **10**, respectively,

the end surfaces of each of the rollers **3** which are slidably in contact with the plates **7** or **8** and **27** of the cylinder **1c** are provided with cut portions **3a** and **3b**, respectively, such that one of the end surfaces facing the end plate **7** or **8** has a larger width than the width of the other end surface facing the partition plate **27** and

10 gas discharged through the high pressure ports **10** is temporarily retained in the airtight container **9**.